CHAPTER XII.

HEALTH.

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Diseases.

Its height of 1500 to 2000 feet above the sea and its short distance of twenty-five to seventy-five miles from the sea combine to make the climate of Belgaum cool, pleasant, and healthy. At the same time its dampness during the south-west rains (June-October) and the extreme dryness of the air at other times forms a sudden change which is trying to the weak, and is apt to cause liver disease, cold, neuralgia, and rheumatism.

Malarious fevers, though prevalent, are seldom severe or fatal, and people from other districts suffering from malarious fevers generally improve by a residence in Belgaum. Epidemics of measles and chicken-pox are not uncommon before and after the rains, but, as a rule, they are mild. Small-pox has always been mild. Dengue was introduced in 1872 from Aden and Poona, but it was confined to a few isolated cases, and never spread as an epidemic. Cholera is chiefly imported, although it occasionally rages as an epidemic in certain parts of the district. The sporadic cases are few, and are amenable to treatment. The 1877 famine was accompanied by a severe outbreak of cholera which proved fatal in a large number of cases. On the setting in of the rains this epidemic disappeared, and remittent fever took its place, passing into an intermittent fever of a severer type than had been known for years in Belgaum.

Hospitals, 1882.

In 1882, there was one civil hospital and five grant-in-aid dispensaries. The number of patients treated was 21,327, of whom 21,021 were outdoor and 306 indoor patients; the cost was £1909 (Rs. 19,090). The following details are taken from the 1882 reports:

Belgaum.

The Belgaum civil hospital probably dates from 1836 when Belgaum was chosen to be the district head-quarters. The prevailing diseases are malarious fevers, bronchitis, worms, and rheumatism. In 1882 cholera prevailed all over the district, and several times appeared in the city, but never in an epidemic form. Out of thirty-one cases seventeen proved fatal. 2384 outdoor and 258 indoor patients were treated at a cost of £1257 16*s.* (Rs. 12,578).

The Belgaum grant-in-aid dispensary was opened in 1859. The commonest diseases are malarious fevers, ophthalmia, bowel complaints, and worms. In 1882 7014 outdoor and five indoor patients were treated at a cost of £151 12*s.* (Rs. 1516).

Dispensaries.

The Gokák dispensary was opened in 1867. The prevailing diseases are malarious fevers, ophthalmia, worms, skin diseases, and ulcers. In 1882 cholera prevailed in May and June, 392 successful vaccinations were performed, and 2552 outdoor and fifteen indoor patients were treated at a cost of £144 (Rs. 1440).

Athni.

The Athni dispensary was opened in 1871. The prevailing diseases are ophthalmia, worms, skin diseases, malarious fevers, and rheumatism. In 1882 cholera prevailed in May and June, 433 successful vaccinations were performed, and 4952 outdoor and nineteen indoor patients were treated at a cost of £134 6*s.* (Rs. 1343).

Saundatti.

The Saundatti dispensary was established in 1875. The commonest diseases are malarious fevers, ophthalmia, chest affections, bowel complaints, and skin diseases. In 1882 no epidemic occurred, 195 children were successfully vaccinated, and 1972 outdoor patients were treated at a cost of £121 2*s.* (Rs. 1211).

Chikodi

The Chikodi dispensary was opened in 1882 in a hired bungalow, 136 children were successfuly vaccinated, and 2147 outpatients and nine inpatients were treated at a cost of £98 16*s.* (Rs. 988).

Infirm People.

According to the 1881 census 2199 persons (males 1268, females 931) or 0·25 per cent of the population were infirm. Of the total number 2052 (males 1171, females 881) were Hindus; 140 (males 90, females 50) Musalmáns; and 7 Christians all of whom were males. Of 2199 the total number of infirm persons, 151 (males 103, females 48) or 6·86 per cent were of unsound mind, 1186 (males 626, females 560) or 53·93 per cent were blind, 573 (males 330, females 243) or 26·05 per cent were deaf and dumb, and 289 (males 209, females 80) or 13·14 per cent were lepers. The details are:

Belgaum Infirm People, 1881.

	Hindus.		Musalmáns.		Christians.		Total.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Insane	101	46	2	2	...	...	103	48
Blind	583	537	41	23	2	...	626	560
Deaf-mute ...	297	221	28	22	5	...	330	243
Lepers	190	77	19	3	...	...	209	80
Total ...	1171	881	90	50	7	...	1268	931

Vaccination.

In 1883-84 under the supervision of the Deputy Sanitary Commissioner Southern Deccan Registration District the work of vaccination was carried on by twelve vaccinators with yearly salaries varying from £16 16*s.* (Rs. 168) to £28 16*s.* (Rs. 288). They were distributed over the rural parts of the district, one of them attending to the work of the Belgaum Town and Cantonment. Besides the vaccinators the medical officers of Belgaum Jail, Chikodi, Gokák, Saundatti, and Athni carried on vaccine operations. The total number of operations was 29,190 besides 1753 re-vaccinations compared with 10,341 primary vaccinations in 1869-70.

The following statement shows the sex, religion, and age of the persons primarily vaccinated:

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Belgaum Vaccination Details, 1869-70 and 1883-84.

Year.	Primary Vaccinations.									
	Sex.		Religion.					Age.		Total.
	Males.	Females.	Hindus.	Musalmáns.	Pársis.	Christians.	Others.	Under one Year.	Above one Year.	
1869-70 ..	5695	4646	9145	877	...	76	243	3272	7069	10,341
1883-84 ...	14,782	14,418	25,086	2686	3	181	1244	10,991	18,209	29,200

In 1883-84 the total cost of these operations, exclusive of those performed in dispensaries, was £659 18*s.* (Rs. 6599) or about 5½*d.* (3¾ *as.*) for each successful case. The charges included supervision and inspection £279 12*s.* (Rs. 2796), establishment £343 18*s.* (Rs. 3439), and contingencies £36 8*s.* (Rs. 364). Of these the supervising and inspecting charges were met from Government provincial funds, £349 12*s.* (Rs. 3496) were borne by the local funds of the different sub-divisions, and £30 14*s.* (Rs. 307) by the Belgaum Municipalty.

Cattle Disease.

Seven forms of cattle disease are known in the district. *Hirebeni* or green disease, *kundrog* a disease caused by insufficient food, *bairog* or tongue disease, *kálbeni* or hoof disease, *damirog* or *gundgi rog* chest diseases, and *nebin byáni* or *tuhaki byáni* and *maháro*g or the great disease thought to be an animal cholera. In *hirebeni* the neck of the animal swells, saliva flows from the mouth, and a swelling forms in the eye. The animal hangs its head and refuses to eat. Great thirst is followed after a day and a half by diarrhœa. The urine becomes tinged with red or mixed with blood, the animal loses strength, lies down, and after a day or two dies. The dung is fetid and contains small portions of the entrails. The people treat the disease with the juice of the *nim* tree Azadirachta indica. *Kundrog* is said to be caused by insufficient or bad water. It lasts about three days and is sometimes fatal. The attack generally begins with a trembling fit. In *bairog* the tongue becomes black and covered with ulcers. Saliva flows from the mouth and the animal can neither eat nor drink. The disease is often cured by rubbing the tongue with *nellikai* or Phyllanthus emblica. In the disease called *kálbeni* the hoofs became full of small worms. It can generally be cured by applying worm poisons for about two months. In the disease called *nebin byáni* or *tuhaki byáni* the attack is sudden like cholera among men. During the attack the cattle neither eat nor drink. They are dull and restless and frequently pass reddish urine. Death generally follows in four or five days. In the disease called *damirog* or *gundgirog* the breathing becomes hard and the eyes bloodshot. The lungs seem to become congested, breathing is difficult, and the animal dies in one to fifteen days. In *maháro*g the nostrils are parched, the mouth swells, and the dung is watery. The people consider this a form of animal cholera.

Births and Deaths.

The total number of deaths shown in the Sanitary Commissioner's yearly reports for the eighteen years ending 1883 is 420,965 or an average mortality of 23,387 that is, according to the 1881 census, of

twenty-seven in every thousand people. Of the average number of deaths 10,980 or 47·94 per cent were returned as due to fevers, 1948 or 8·32 per cent to cholera, 587 or 2·51 per cent to small-pox, 2104 or 8·99 per cent to bowel complaints, and 7466 or 31·96 per cent to miscellaneous diseases. Deaths from violence or injuries averaged 300 or 1·28 per cent of the average mortality. During the thirteen years ending 1883 the number of births was returned at 313,055 or an average yearly birth-rate of 24,081, or, according to 1881 census, twenty-eight per thousand. An examination of the death returns shows that fever, which, during the eighteen years ending 1883 caused an average yearly mortality of 10,980 or 47·94 per cent, was below the average in the nine years ending 1874 and in 1882 and 1883, and in the seven years ending 1881 was above the average. The six years ending 1871 had less than 6000 deaths from fever, the lowest total being 4126 in 1870, two years 1872 and 1873 had between 6000 and 7000, and three years 1874 1882 and 1883 had between 8000 and 10,000, the lowest total being 8428 in 1874. Of the seven years above the average, three years 1875 1876 and 1881 had between 11,000 and 15,000, two years 1879 and 1880 had between 15,000 and 20,000, and two years 1877 and 1878 had between 20,000 and 26,000. Of the deaths from cholera, which amounted to 35,074 and averaged 1948, 8357 or 23·82 per cent happened in 1877, .7808 or 22·26 per cent in 1869, 5757 or 16·41 per cent in 1878, and 4950 or 14·11 per cent in 1876. The only other years which were over the average were 1875 with 2736 and 1866 with 1962. Of the nine years below the average, 1882 had 1334 deaths, 1872 had 617, 1883 had 479, three years 1868 1870 and 1881 had between 300 and 400, and three years 1867 1871 and 1873 had below fifty. The remaining three years 1874 1879 and 1880 were free from cholera. Of the deaths from small-pox which amounted to 10,574 and averaged 587, 1292 or 12·21 per cent happened in 1871, 3133 or 29·62 per cent in 1872, and 1112 or 10·51 per cent in 1877. Besides these years, three years had a more than average mortality from small-pox, 1867 with 887, 1875 with 693, and 1876 with 796. Of the twelve years below the average, two years 1874 and 1883 had between 550 and 400, three years 1866 1869 and 1870 between 400 and 300, two years 1868 and 1873 between 300 and 200, 1878 had 105 deaths, 1882 had forty-seven, and the remaining three years 1879 1880 and 1881 had below ten. Of the deaths from bowel complaints, which amounted to 37,878 or 2104 a year, eight were above the average and ten were below the average. The smallest number of deaths from bowel complaints in any one of the eighteen years was 308 in 1867, and the largest was 5632 in 1877. Injuries, with a total mortality of 5405 and an average of 300, varied from 160 in 1869 to 529 in 1877. Other causes with a total mortality of 134,393 and an average mortality of 7466 varied from 3365 in 1867 to 29,347 in 1877.

During the thirteen years for which birth returns are available the yearly totals varied from a lowest of 11,773 in 1878 to a highest of 35,078 in 1883 and averaged 24,081 or according to the 1881 census, twenty-eight in every thousand people. The details are :

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Belgaum Births and Deaths, 1866-1883.[1]

Year.	Deaths.							Births.
	Cholera.	Small-pox.	Fevers.	Bowel Com-plaints.	Injuries.	Other Causes.	Total.	
1866	1962	352	5518	417	198	4750	13,197	...
1867	4	887	5850	308	168	3365	10,582	..
1868	363	220	5420	365	174	4126	10,666	...
1869	7808	320	5060	442	160	6395	20,185	...
1870	302	326	4126	490	187	5807	11,238	...
1871	40	1292	5808	1656	276	5395	14,467	16,747
1872	617	3133	6761	1921	316	7420	20,168	17,609
1873	16	299	6610	1439	313	7044	15,721	19,845
1874	...	537	8428	1953	322	8437	19,677	24,912
1875	2736	693	14,772	2858	322	8683	30,064	30,257
1876	4950	796	12,681	3054	281	9259	31,021	27,563
1877	8357	1112	25,267	5632	529	29,347	70,244	22,425
1878	5757	105	25,381	2540	463	9962	44,208	11,773
1879	...	6	18,922	1901	424	5421	26,674	19,170
1880	...	5	15,666	2545	339	4943	23,498	24,184
1881	349	4	11,874	3026	327	4552	20,132	31,015
1882	1334	47	9932	3412	337	4953	20,015	32,477
1883	479	440	9565	3919	271	4534	19,208	35,078
Total ...	35,074	10,574	197,641	37,878	5405	134,393	420,965	313,055
Average ...	1948	587	10,980	2104	300	7466	23,387	24,081

[1] The deaths returns are believed to be fairly correct and the birth returns to be incomplete.